§ 148.230

§ 148.230 Calcium oxide (lime, unslaked).

- (a) When transported by barge, unslaked lime (calcium oxide) must be carried in an unmanned, all steel, double-hulled barge equipped with weathertight hatches or covers. The barge must not carry any other cargo while unslaked lime is on board.
- (b) The shipping paper requirements in §148.60 of this part and the dangerous cargo manifest requirements in §148.70 of this part do not apply to the transportation of unslaked lime under paragraph (a) of this section.

§ 148.235 Castor beans.

- (a) This part applies only to the stowage and transportation of whole castor beans. Castor meal, castor pomace, and castor flakes may not be shipped in bulk.
- (b) Persons handling castor beans must wear dust masks and goggles.
- (c) Care must be taken to prevent castor bean dust from entering accommodation, control, or service spaces during cargo transfer operations.

§148.240 Coal.

- (a) The electrical equipment in cargo holds carrying coal must meet the requirements of Subpart 111.105 of this chapter or an equivalent standard approved by the administration of the vessel's flag state.
- (b) Before coal is loaded in a cargo hold, the bilges must be as clean and dry as practical. The hold must also be free of any readily combustible material, including the residue of previous cargoes if other than coal.
- (c) The master of each vessel carrying coal must ensure that—
- (1) All openings to the cargo hold, except for unloading gates on self-unloading vessels, are sealed before loading the coal and, unless the coal is as described in paragraph (f) of this section, the hatches must also be sealed after loading:
- (2) As far as practical, gases emitted by the coal do not accumulate in enclosed working spaces such as storerooms, shops, or passageways, and tunnel spaces on self-unloading vessels, and that such spaces are adequately ventilated:

- (3) The vessel has adequate ventilation as required by paragraph (f) of this section; and
- (4) If the temperature of the coal is to be monitored under paragraph (e)(2)(i) of this section, the vessel has instruments that are capable of measuring the temperature of the cargo in the range 0° – 100° C (32° – 212° F) without entry into the cargo hold.
- (d) A cargo hold containing coal must not be ventilated unless the conditions of paragraph (f) of this section are met, or unless methane is detected under paragraph (h) of this section.
- (e) If coal waiting to be loaded has shown a tendency to self-heat, has been handled so that it may likely self-heat, or has been observed to be heating, the master is responsible for monitoring the temperature of the coal at several intervals during these times:
 - (1) Before loading; and
 - (2) During the voyage, by—
- (i) Measuring the temperature of the coal;
- (ii) Measuring the emission of carbon monoxide; or
 - (iii) Both.
- (f) If coal waiting to be loaded has a potential to emit dangerous amounts of methane, for example it is freshly mined, or has a history of emitting dangerous amounts of methane, then:
- (1) Surface ventilation, either natural or from fixed or portable nonsparking fans, must be provided; and
- (2) The atmosphere above the coal must be monitored for the presence of methane as prescribed in paragraph (h) of this section. The results of this monitoring must be recorded at least twice in every 24-hour period, unless the conditions of paragraph (m) of this section are met.
- (g) Electrical equipment and cables in a hold containing a coal described in paragraph (f) of this section must be either suitable for use in an explosive gas atmosphere or de-energized at a point outside the hold. Electrical equipment and cables necessary for continuous safe operations, such as lighting fixtures, must be suitable for use in an explosive gas atmosphere. The master of the vessel must ensure that the affected equipment and cables remain denergized as long as this coal remains in the hold.